NMI INFRASTRUCTURE QUESTIONS

The NNDSS Modernization Initiative (NMI) Infrastructure Questions can be used to help a public health agency (PHA) assess the overall infrastructure and available resources to implement case notifications. Areas covered include current state of information systems, technical architecture, a high-level overview of the PHA surveillance system, and terminology-related questions.

TECHNICAL ARCHITECTURE QUESTIONS

1. What surveillance system are you using?
2. How do you extract disease-specific case information from your surveillance system? How are these extracts stored? Are they manual or electronic; what is the frequency with which extracts are generated? What is the process for corrections and edits?
3. What is the current process to send case notifications to CDC?
4. Do you use an integration engine for NMI (e.g., Rhapsody, MIRTH, multiple)?
5. What are the HL7 versions (e.g., 2.3.1, 2.5.1) and message types (e.g., ORU, OML, OUL, ORM) that are currently supported, if any?
6. Do you use different surveillance systems for different diseases?
7. Are there any limitations for access to surveillance systems, integration engines, databases, or other components involved in your case notification reporting route?
8. Have you gathered necessary documents (technical architecture diagrams, local mapping data dictionaries, etc.) that may be needed?
9. Do you have staging (test environment) and production environments available?
10. Does your organization require a separate test evaluation and acceptance testing processes before software can be rolled out to production?
11. Does your staff have direct access to systems needed to make changes to data streams? If not, will contractors/vendors be needed?

TECHNICAL ARCHITECTURE: TRANSPORT QUESTIONS

12. What is your current transport mechanism for reporting?
13. Will you use the PHIN Messaging System (PHINMS) to send HL7 messages?
14. Do you currently use the APHL Informatics Messaging Services (AIMS) Hub?

TECHNICAL ARCHITECTURE: PERFORMANCE QUESTIONS

15. What is your estimate of the overall volume and frequency of reportable condition data?
16. Are there other notable applications running on the system that may influence system performance (e.g., hardware)?

VOCABULARY: BACKGROUND QUESTIONS

17. Are standard CDCREC codes used for race/ethnicity (Race Category and Ethnic Group Code)? What alternate code(s) and/or free text are available?
18. For fields populated from a predefined list of answers (i.e., dropdowns), do you have codes available? Are the codes in use standardized?
19. Do you have a process for updating/maintaining standard and/or local codes and value sets? If so, what process and sources are used (e.g., PHIN Vocabulary Access and Distribution System [PHINVADS], Reportable Condition Mapping Table [RCMT], official standard code distributions including Regenstrief Institute for LOINC and NLM for SNOMED CT, other)?
20. In what formats do you receive data from local health departments, hospitals, etc? Are any of these data received in a coded form? Is further normalization/coding/translation/mapping done after receiving the data (e.g., in surveillance system, integration engine, other)?
21. Can you access raw laboratory data for NMI reporting (e.g., from your electronic laboratory reporting [ELR] feed)?
22. Which value sets and/or free text are available for lab tests (e.g., LOINC, SNOMED CT, local codes, free text)?
23. What value sets and/or free text are available for non-numeric lab results and interpretations (abnormal flags) (e.g., organisms, descriptive, categorical, pos/neg)?
24. Are standard codes (SNOMED CT or HL7) used for specimen source/type? What alternative code(s) and/or free text are available?